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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,526	12/04/2003	Makoto Kuwamura	032153	5932
38834	7590	03/09/2005	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			JUBA JR, JOHN	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/726,526

**Applicant(s)**

KUWAMURA, MAKOTO

**Examiner**

John Juba, Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6-13 is/are rejected.
- 7) ☒ Claim(s) 2 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/4/2003
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Duplicate Claims***

Applicant is advised that should claim 3 be found allowable, claim 4 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, and 6 – 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito, et al (U.S. Patent Appl. Pub. no. 2003/0169497 A1). [Applicant cannot rely upon the foreign priority papers to overcome this rejection because a

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translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.]

With regard to claims 1, 3, 4, 6, and 10, refer to Figures 2A, 2B, and the text in paragraph [0052].

With regard to claims 7 – 9 and 11 – 13, refer to the text in paragraph [0053].

Claims 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by SEKISUI CHEM CO (JP 09-090344A; hereinafter "SEKISUI"). Referring for example to Figure 3 and the attached machine-assisted translation, SEKISUI disclose a polarizer comprising a pair of TAC protective sheets laminated to opposite sides of a PVA polarizing layer (paras. [0009] & [0010]). The lamination, which begins with a degree of curl from having been wound on a roll and which is susceptible to further curling due to curing of the adhesive layers, is stacked with similar laminations, such that their respective curvatures (from winding) are oppositely directed. The cured final lamination (e.g., 7) is substantially free from curling.

With particular regard to claim 6, the recited process steps are considered limitative of the claimed final *structure* to the extent that they clearly require the polarizing plate to comprise a protective layer on each side of a polarizer layer. Further, it is believed that one of ordinary skill would understand the recited article to be substantially free from curl. However, "Process limitations cannot impart patentability to product claim where product is not patentably distinguished over prior art." *In re Dike*, 157 USPQ 581 (CCPA 1968). It is well-settled that the "[p]resence of process limitations in product

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claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product.” *In re Stephens*, 345 F.2d 1020 (CCPA 1965), 145 USPQ 565, citing *Dilnot*. In the instant case, the prior art polarizing plate appears to have all of the structure as would arise from the recited process steps.

With particular regard to claim 10, the protective sheets of the prior art are not separated from the polarizer layer. Thus, the recitation of their curled state upon separation is immaterial. The claim is clearly directed to the polarizing plate having non-separated layers, and the prior art article has the recited non-separated layers. Further, to the extent that it *may* later be held that the claim requires the protective sheets to have some intrinsic curl, then it is noted that SEKISUI disclose an uncured polarizing plate (e.g., 7) comprising protective sheets with intrinsic curl wherein the curling directions of said protective sheets are opposite to each other when separated from the polarizer, *when one of the sheets is reversed*.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 – 9 and 11 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over SEKISUI CHEM CO (JP 09-090344A; hereinafter “SEKISUI”), in view of Official notice. As set forth above for claims 6 and 10, SEKISUI disclose the

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invention substantially as claimed. However, SEKISUI do not disclose an additional "optical layer" and do not disclose a display. Nonetheless, SEKISUI clearly disclose that the polarizing plates with tacky adhesive layers are "used for liquid crystal display devices" (abstract, and paras., [0001] & [0020]).

The examiner takes Official notice of the fact that it was well known that liquid crystal displays include at least one transparent substrate. Further, it was well known to laminate additional optical functional layers to the polarizer plate of liquid crystal displays. Such optical films as compensation layers were known to provide reduced false coloration over a range of viewing angles, while anti-glare layers were known to provide enhanced viewing by reducing veiling glare.

It would have been obvious to one of ordinary skill to laminate the polarizer plate of SEKISUI with a liquid crystal display, since SEKISUI expressly suggest such use. In so doing, the examiner believes that the plate would at least have been laminated with at least a transparent substrate of the liquid crystal display. Since the substrate is specified as being light transparent, it is believed that the substrate fairly qualifies as an "optical layer" within the specificity recited. However, if such is not the case, then it would have been obvious to one of ordinary skill to laminate a compensating layer or an anti-glare layer to the polarizer plate in the interest of providing a wider range of viewing angles free from false-coloration, or in the interest of providing enhanced viewing with less viewer fatigue, as was well known.

Claims 1, 3, 4, 6 - 8, and 10 – 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Pekko (U.S. Patent number 4,292,370), or in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Pekko in view of (U.S. Patent Appl. Pub. no. 2003/0230379 A1). Referring to Figure 1 and the associated text, Pekko discloses a method of forming a polarizing plate comprising the step of laminating a pair of protective sheets (20)(50) onto opposite surfaces of a polarizer (15) respectively. The *character* of the sheets as being bent so that the sheets are curled and such that respective curling directions of said pair of curled protective sheets are reverse to each other is evident by inspection. With regard to claims 6, 8, 10, and 12, Pekko anticipates the combination of the polarizer made by this process, and comprising protective sheets which have curling directions which are opposite to each other when separated (*i.e.*, prior to being laminated) in a display, as illustrated in Figure 2. With particular regard to claims 7, 9, 11, and 13, the examiner believes that the transparent substrate (2) fairly constitutes an additional optical layer, within the specificity recited. Thus, Pekko is believed to anticipate the invention as claimed. However, if the expression “curling directions” has a particular meaning distinct from the direction of Pekko’s bent films, or if it *may later be found* that Pekko does not disclose curled protective sheets within the present context, then the following applies.

Roubik teaches that prior art protective films are subject to residual intrinsic curling as a result of having been provided and stored as roll stock and that the intrinsic curling tends to undermine the reliability of a laminate joined with the curled protective

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layers. In order to overcome this difficulty, Roubik teaches that the curled protective sheets should be applied to opposite surfaces of the central, protected layer respectively so that respective curling directions of said pair of curled protective sheets are reverse to each other.

It would have been obvious to one of ordinary skill to provide the protective layers of Pekko with their respective curling directions opposite each other, in the interest of providing a laminate that is less prone to delamination, as suggested by Roubik.

Claims 7, 9, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pekko, in view of Official notice, or in the alternative over Pekko and Roubik, in view of Official notice. As set forth above for claims 6 and 10, Pekko discloses the invention substantially as claimed, alone, or at least in combination with Roubik. However, if it *may later be held* that the transparent substrate (2) of Pekko is not an "optical layer" within the meaning of the present specification, then the examiner takes Official notice of the fact that well known to laminate additional optical functional layers to the polarizer plate of liquid crystal displays. Such optical films as compensation layers were known to provide reduced false coloration over a range of viewing angles, while anti-glare layers were known to provide enhanced viewing by reducing veiling glare.

It would have been obvious to one of ordinary skill to laminate the polarizer plate of Pekko, or of Pekko in view of Roubik with a compensating layer or an anti-glare layer



to the polarizer plate in the interest of providing a wider range of viewing angles free from false-coloration, or in the interest of providing enhanced viewing with less viewer fatigue, as was well known.

### ***Allowable Subject Matter***

Claims 2 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art, taken alone or in combination, fails to teach or fairly suggest the polarizing plate particularly wherein the curled protective sheets have a laminating index of not higher than 60, as defined in claim 2.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kuhn, et al (U.S. Patent number 6,066,218) disclose a method comprising the steps of comprising the step of laminating a pair of curled protective layers onto opposite surfaces of a *magneto-optical* layer respectively so that respective curling directions of said pair of curled protective sheets are reverse to each other. One of ordinary skill would *not* regard a magneto-optical layer as a "polarizer". [Broadly, a polarizer is an optical device capable of transforming unpolarized or natural light into polarized light. Even more broadly, a polarizer increases the degree of polarization of incident light. A magneto-optical layer does neither.]

Shimodaira, et al (U.S. Patent number 6,331,882) disclose a polarizing layer joined with a phase difference film using a specified adhesive such that the laminate exhibits only a practical degree of curling upon heating.

Laethem (U.S. Patent number 3,806,400) teaches that improved impact resistance can be obtained by laminating three transparent layers with the two outer layers having curvatures which are oppositely directed (Figs. 7 & 8).

CITIZEN WATCH CO (JP 54-133150 A) disclose a method of producing an LCD plate comprising the step of laminating a pair of curled polarizers sheets onto opposite surfaces of an LCD cell that respective curling directions of said pair of curled polarizers sheets are reverse to each other.

SUMITOMO CHEMICAL CO (JP 2001-108830A) disclose a laminated polarizer with reduced curling.


SHARP CORP (JP 61-070504A) disclose a method of reducing bending in a polarizer plate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (571) 272-2314. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn whose number is (571) 272-2312 and who can be reached on Mon.- Thu., 9 - 5.

The centralized fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for *all* communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.

  
**JOHN JUBA, JR.**  
**PRIMARY EXAMINER**  
**Art Unit 2872**

March 4, 2005